

AMENDMENTS TO THE CLAIMS

1-50. (Canceled)

51. (New) A method for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary management area, a second management area and a data area, the data area having a spare area, the method comprising:

(a) writing data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area; and

(b) writing first management information and second management information onto the first management area, the first management information including a location of at least the defective unit and the replacement unit, and the second management information including a location of the first management information.

52. (New) The method as claimed in claim 51, further comprising:

(c) updating the first and second management information based on the (a) and (b) steps until the recording medium is to be finalized; and

(d) writing, at finalization of the recording medium, the updated first and second management information written in the first management area onto the second management area.

53. (New) The method as claimed in claim 51, wherein the first management area is located within the data area.

54. (New) The method as claimed in claim 51, wherein the first management area is located outside of the data area.

55. (New) An Apparatus for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary management area, a second management area and a data area having a spare area, the apparatus comprising:

an optical pickup for writing/reading data to/from the recording medium;

a servo unit for controlling the pickup to maintain a distance between the pickup and the recording medium; and

a controller for controlling the servo unit and pickup to write data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area, and to write first management information including a location of at least the defective unit and the replacement unit and second management information including a location of the first management information onto the first management area.

56. (New) The apparatus as claimed in claim 55, wherein the controller updates the first and second management information until the recording medium is to be finalized, and writes the updated first and second management information written in the first management area onto the second management area at finalization of the recording medium.

57. (New) A recording medium, comprising:

at least one recording layer including a lead-in area, a data area and a lead-out area, the data area including at least one spare area, the spare area allocated on an inner and/or outer portion of the data area for replacement-writing data written in a defective unit of the data area onto a replacement unit in the spare area;

at least one first management area allocated within the data area and/or outside of the data area for temporarily writing first management information and second management information, the first management information including a location of at least the defective unit and replacement unit and second management information including a location of the first management information; and

at least one second management area allocated outside of the data area.

58. (New) The recording medium as claimed in claim 57, wherein the first and second management information is updated in the first management area until the recording medium is to be finalized, and the last updated first and second management information written in the first

management area is written in the second management area at finalization of the recording medium.

59. (New) A method for managing a defective unit on a write-once recording medium, the recording medium including a data area, the data area having a spare area, the method comprising:

(a) writing data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area;

(b) writing temporary defect list information including at least one defect entry onto a temporary defect management area on the write-once recording medium, wherein the defect entry indicates a location of the defective unit and a location of the replacement unit in the spare area; and

(c) writing, at finalization of the write-once recording medium, last temporary defect list information written in the temporary defect management area onto a defect management area as permanent defect list information.

60. (New) The method as claimed in claim 59, wherein the write-once recording medium is finalized when a user data area of the data area is full.

61. (New) An apparatus for managing a defective unit on a write-once recording medium, the recording medium including a data area, the data area having a spare area, the apparatus comprising:

an optical pickup for writing/reading data to/from the write-once recording medium;

a servo unit for controlling the pickup to maintain a distance between the pickup and the write-once recording medium; and

a controller for controlling the servo unit and the pickup to write data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area, and to write temporary defect list information including at least one defect entry onto a

temporary defect management area on the write-once recording medium, wherein the defect entry indicates a location of the defective unit and a location of the replacement unit in the spare area, and to write last temporary defect list information written in the temporary defect management area onto a defect management area as permanent defect list information at finalization of the write-once recording medium.

62. (New) The apparatus as claimed in claim 61, wherein the write-once recording medium is finalized when a user data area of the data area is full.

63. (New) A write-once recording medium, comprising:

at least one recording layer including a lead-in area, a data area and a lead-out area, the data area including at least one spare area having a replacement unit, the spare area allocated on an inner and/or outer portion of the data area for replacement-writing data written in a defective unit of the data area onto the replacement unit;

at least one temporary defect management area (TDMA) allocated within the data area and/or outside of the data area for writing temporary defect list (TDFL) pertaining to the defective unit and writing temporary disc definition structure (TDDS) including information indicating a location of the temporary defect list (TDFL); and

at least one defect management area (DMA) allocated in the lead-in area and/or the lead-out area for writing therein last written TDFL and TDDS from the TDMA when the write-once recording medium is to be finalized.

64. (New) The write-once recording medium as claimed in claim 63, wherein the write-once recording medium is finalized when a user data area of the data area is full.